

Enhancing Content Knowledge and Pedagogical Skill with the Common Core State Standards for Mathematics

MSP Grant Application

Background, Requirements, and Directions

This grant application is available to all qualifying partnerships between Local Education Agencies (LEA's) and an Institute of Higher Education (IHE) interested in working with the Rhode Island Department of Elementary and Secondary Education (RIDE) to address the educational needs of the State of Rhode Island and to build capacity and sustainability for professional development around standards-based mathematics.



Rhode Island Department of Education MATHEMATICS AND SCIENCE PARTNERSHIP GRANT APPLICATION

I. PROJECT BACKGROUND

Mathematics and Science Partnership

The Mathematics and Science Partnerships (MSP) program provides formula grants to states under ESEA Title II, Part B Sec. 2201, 2202, and 2203, as amended by the No Child Left Behind Act of 2001. The purpose of the program is to fund professional development activities that are designed to improve teachers' content knowledge and teaching skills, and that lead to improved academic achievement of students in the areas of mathematics and science through partnerships between institutions of higher education (IHEs) and high-need local educational agencies (LEAs). ¹

The enabling legislation describes the purposes for the MSP program as follows:

- To improve and upgrade the status and stature of mathematics and science teaching by encouraging institutions of higher education to assume greater responsibility for improving mathematics and science teacher education through the establishment of a comprehensive, integrated system of recruiting, training, and advising mathematics and science teachers.
- To focus on the education of mathematics and science teachers as a careerlong process that continuously stimulates teachers' intellectual growth and upgrades teachers' knowledge and skills.
- To bring mathematics and science teachers in elementary schools and secondary schools together with scientists, mathematicians, and engineers to increase the subject matter knowledge of mathematics and science teachers and improve such teachers' teaching skills through the use of sophisticated laboratory equipment and work space, computing facilities, libraries, and other resources that institutions of higher education are better able to provide than the elementary schools and secondary schools.
- To develop more rigorous mathematics and science curricula that are aligned with challenging State and local academic content standards and with the

¹ For the purposes of this grant, a high-need district meets <u>at least one</u> of the following conditions:

⁽a) At least 20 percent of its students qualify for free or reduced meals.

⁽b) At least one school in the district has not met AYP in mathematics for a minimum of three years.

⁽c) Fewer than 50 percent of students tested scored Proficient or Proficient with Distinction on the 2013 NECAP test in mathematics.

- standards expected for postsecondary study in engineering, mathematics, and science.
- To improve and expand training of mathematics and science teachers, including training such teachers in the effective integration of technology into curricula and instruction.²

The Rhode Island Department of Education (RIDE) is responsible for the administration of the MSP program and will award funds to support successful proposals. *Enhancing Content Knowledge and Pedagogical Skill with the Common Core State Standards for Mathematics* is designed to respond to the needs expressed concerning mathematics statewide. It is also designed to meet the purposes and goals of MSP.

Rhode Island's Priority

The current status of mathematics education in Rhode Island mirrors national trends of urgency associated with the development of internationally benchmarked standards and the instructional supports necessary for their delivery with fidelity. In response to this urgent call, Rhode Island has adopted, and is currently implementing, the Common Core State Standards in Mathematics (CCSS-M). The adoption of the CCSS-M by the state produces the requisite responsibility of offering opportunities for educators to increase their content knowledge as well as their repertoire of effective instructional strategies aimed at fostering a deep conceptual understanding, fluency, and application of mathematics with appropriate rigor in their students. Ideally, these opportunities will address the needs of the participants and be linked to a well-designed standards-based curriculum.

The Rhode Island Department of Elementary and Secondary Education (RIDE) is seeking a partnership between an LEA(s) and a qualified Institute of Higher Education (IHE)³ to apply to develop, execute, and manage a professional development experience based on the CCSS-M and the district curriculum. The goal of the PD is to increase educator content knowledge while enhancing adeptness with instructional strategies ultimately resulting in increased student performance and understanding.

The professional development will address mathematical content and pedagogical needs for teachers in grades three through five. It will be comprised of ten days of

² U.S. Department of Education, "Part B – Mathematics and Science Partnerships," 2004, <www.ed.gov/policy/elsec/leg/esea02/pg26.html> (March 2009)

³ For the purposes of this grant, a qualified Institution for Higher Education is one that includes a mathematics education department.

intensive professional development⁴, twenty-four hours of follow-up professional development, and a specified number of focused classroom visits, coaching sessions, and grade level support meetings throughout the school year⁵. The mathematical content of the PD will be grounded in the CCSS-M and relate directly to the grade level district curriculum.

II. PROGRAM DESCRIPTION

Goals and Objectives

Enhancing Content Knowledge and Pedagogical Skill with the Common Core State Standards for Mathematics seeks a partnership between an LEA and a qualified IHE with the intent of deepening educator content knowledge and improving instructional practices with the end goal of improving student learning in mathematics. The partnership requires an LEA and an IHE to engage in an intensive professional development program commencing in the summer of 2015, continuing through the school year, and to rigorously evaluate the initial effectiveness of that program at the end of the school year in 2016. The partnership will consult with RIDE, which will assume a monitoring and support role to ensure timeliness as well as quality of and commitment to the grant activities, at various points throughout the life of the project.

The four main goals of the project are:

- To improve educators' content knowledge in grades 3 5 by engaging in high quality professional development grounded in the Common Core State Standards for Mathematics (CCSS-M)
- To improve educators' pedagogical skill in grades 3 5 by engaging in high quality professional development that leverages the Standards for Mathematical Practice in the CCSS-M
- To create a system to support and coach educators in their endeavor to apply new content knowledge and pedagogical skill in the classroom while delivering a district mathematics curriculum that is based on the CCSS-M
- To develop a cadre of teacher leaders, comprised of exemplary educators from each grade level (3 – 5) and school, who will assist in the facilitation and sustainability of the project

Specifically:

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⁴ Preferably, the ten days of intensive professional development will take place during the summer for ten consecutive work days. However, some flexibility is permissible with the stipulation that there be a minimum of five consecutive work days of intensive summer professional development with the balance of the other five days spread throughout the year. A day is defined as a period of six hours of active instruction.

⁵ The grade level support meetings can be one component of the twenty-four hours of follow-up professional development. These hours may also include, but are not limited to, additional content coverage and debriefing sessions.

- LEA educators will engage in a deep study of grade level content as outlined by the CCSS-M and the district curriculum with the dual goal of increasing content knowledge and gaining facility in instructional strategies that capitalize on the Standards for Mathematical Practice.
- Participants will use this knowledge to:
 - Create and execute model lessons for study during focused classroom visits by IHE faculty and fellow grade level educators;
 - Engage in coaching sessions with IHE faculty;
 - o Participate in grade level team meetings facilitated by IHE faculty;
 - Sustain the practice of participating in grade level team meetings, without the aid of IHE faculty, through a gradual release process during the grant period and following the conclusion of the grant period.

The work of this grant shall:

- Directly relate to the curricular and academic areas in which the teacher provides instruction;
- Enhance the ability of the teacher to apply and use the state adopted content standards in mathematics (CCSS-M) within existing curricula;
- Increase pedagogical skill in mathematics;
- Develop the leadership skills of a select group of exemplary educators;
- Nurture the formation of grade level support teams to become self-sustaining.

Eligible Partnerships

As defined in Sec. 2202(a)(1), of Title II, Part B, partnerships must include a mathematics department (including a mathematics education department) of an IHE and a high-need LEA. Partnerships may also include other IHE, LEA, business, and community partners. Based on the current priorities in Rhode Island, the partnership must focus on the development of mathematics content and instructional practices grounded in both the Standards for Mathematical Content and the Standards for Mathematical Practice as outlined in the CCSS-M. All parties involved share responsibility and accountability for project implementation and outcomes. Each partnership must designate a project director to serve as point of primary contact for the LEA(s). The partnership must be active and well-defined in all aspects of the grant, including planning, delivery, and evaluation of the professional development.

LEA Partner Requirements

To be eligible for a MSP grant award, an applicant LEA must demonstrate a need for improvement in student performance in mathematics and have a written and aligned

curriculum in mathematics. Preference will be given to LEAs who demonstrate highneed status or partnerships which include at least one <u>high-need</u> district. For the purposes of this grant, a high-need district is defined as one that meets <u>at least one</u> of the following conditions:

- At least 20 percent of its students qualify for free or reduced meals.
- At least one school in the district has not met AYP in mathematics for a minimum of three years.
- Fewer than 50 percent of students tested scored at the Proficient or Proficient with Distinction level on the 2013 NECAP assessment in Mathematics.

In addition, each LEA must:

- Establish a district leadership team that will coordinate the grant and identify an IHE partner and to oversee the project;
- Establish a partnership with an IHE prior to submitting an application for a grant award;
- Clearly articulate how this program will integrate with other ongoing school and/or district reform initiatives;
- Collaborate with the IHE to conduct a comprehensive needs assessment and author a summary report;
- Ensure teacher participation in each session of the project's professional development for the duration of *Enhancing Content Knowledge and Pedagogical Skill with the Common Core State Standards for Mathematics;*
- Establish a plan for the involvement of district level and school level leadership in the project to build awareness of the purpose and intent of the PD and to support teachers as they implement their training in the classroom;
- Formulate a plan to accommodate release time for school-based activities, i.e. focused classroom visits, coaching sessions, grade level meetings;
- Carry out the action steps designed to meet the goals of the project;
- Participate in evaluations to determine the progress and effectiveness of the work;
- Carefully document use of MSP funds and complete all necessary reports and updates, as required by RIDE and the U. S. Department of Education.

IHE Partner Requirements

IHEs will serve as subject matter experts for this project and will be required to work in tandem with the LEA leadership and RIDE throughout its duration. The IHE will also:

• Conduct a comprehensive needs assessment in collaboration with district leadership and author a summary report;

- Design and/or secure pedagogical pre-/post-assessments and mathematics content pre-/post-assessments to be administered to teachers as required by the MSP grant (http://www.ed- msp.net/public documents/document/resource/Guide%20for%20Reporting% 20on%20MSP%20Evaluations.pdf);
- Design a minimum of three courses for the intensive professional development based on data from the needs assessment and the pedagogical and mathematics pre-test results;
- Conduct on-site focused classroom visits, coaching sessions, and establish and facilitate grade level support team meetings as well as design all applicable protocols;
- Implement, manage, and deliver an evaluation plan for the project.

Additional Project Requirements

In addition to the requirements dictated by the goals and objectives and specific partner requirements mentioned above, the project must also meet the following criteria:

- Project details must address how the results of a comprehensive needs assessment, pedagogical pre-assessment, and the mathematics content pre-test will be used to determine the curriculum of the PD and the follow-up supports;
- Full participation in grant activities by at least 90% of the educators from grades three through five including:
 - o ELL and special educators appropriate in number to the population and needs of the district
 - o Teachers, teacher leaders⁶, content-area coaches representing grades 3 through 5
- Each project participant must commit to ten consecutive days of intensive summer professional development and twenty-four hours of follow-up sessions spread throughout the 2015-2016 school year;⁷
- Each project participant must commit to a minimum of six monthly coaching sessions and focused classroom visits spread throughout the 2015-2016 school year;
- Each project participant must complete all assignments and follow-up activities that are included in the professional development sessions;
- Each project participant must commit to the establishment of grade level support teams which will meet monthly and remain active beyond the duration of the grant.

Partnerships should focus on developing content knowledge that is linked to a district curriculum that is aligned to the Common Core State Standards for Mathematics. The

⁶ Teacher- leaders must be current classroom teachers who exhibit the qualities identified in Rhode Island's "Standards for Educational Leaders."

⁷ See footnote 1 for clarification on the intensive ten days professional development.

IHE should be well versed in both the Standards for Mathematical Content as well as the Standards for Mathematical Practice. Additionally, the IHE should be well equipped to actively employ and model technologically- based instructional strategies.

The selected partnership between an LEA and an IHE will consult with RIDE on a regular basis to insure timeliness and product quality for *Enhancing Content Knowledge* and *Pedagogical Skill with the Common Core State Standards for Mathematics*.

Evaluation

LEAs will be required to participate in the evaluation of the project. The MSP grant requires an IHE, to develop an evaluation and accountability system that includes measurable objectives related to the goals of the project, assessing both implementation and impact. It should use measurable data garnered from the pre- and post-assessments of pedagogical skill and mathematics content knowledge. It may include an analysis of student performance and achievement on the Partnership for Assessment of Readiness for College and Careers (PARCC) state assessments for mathematics as well as additional assessment tools such as interim assessments, LEA wide benchmarks, end of course, and common assessments as designed and managed by the evaluator. The IHE will be the active partner from the planning through completion of the final reports. Project participants must take part in all components of the evaluation.

III. Funding

Grant Awards

Pending approval of a partnership's (LEA collaborating with an IHE) application, the \$700,000 grant will be awarded for an approximate twenty-two month period concluding August 30, 2016. Subsequent years of funding will be dependent upon successful completion of project requirements, interim goals, and deadlines. Continuation of funding beyond the initial year is dependent upon federal reauthorization.

Fund Use

Funds received may be used to support professional development programs and content development in mathematics that is directly related to the goals and objectives of *Enhancing Content Knowledge and Pedagogical Skill with the Common Core State Standards for Mathematics.*

Funds may be used for project activities including, but not limited to, the following:

- Higher education consultants
- Teacher stipends
- Substitute coverage
- Administrative costs

- Materials for professional development
- Evaluation, recommended not to exceed 10% of the project budget
- Indirect costs, recommended not to exceed a rate of 8%

Funds may not be used for:

- Materials for classroom use
- Food

Budgets are a required component of the project application.

The partnership is responsible for securing a space to provide the intensive professional development. Costs of these sites must be included in the budget.

IV. APPLICATION AND REVIEW

Review Process

RIDE will award the 2015-2016 ESEA Title II, Part B MSP funding to a partnership that includes an LEA and an IHE committed to the design, execution, and management of a project that will improve teacher instruction and student learning in grades three to five mathematics.

Proposals will be reviewed by RIDE staff for completeness and compliance with the regulations set forth in this RFP and Title II, Part B Sec. 2201, 2202, and 2203 of the Elementary and Secondary Education Act, as amended by the No Child Left Behind Act of 2001 to determine applicant eligibility. Grants will be awarded through a competitive review process utilizing a rubric based on the criteria outlined below. The review process is intended to identify proposals that meet the criteria set forth in the application and that describe a sound plan for implementation.

Proposal Requirements

At a minimum, each proposal submitted must be comprised of the components listed below.

a. Completed Application Form

Partnership Information Section must include:

- Identification of LEA leadership team
- Identification of IHE team members with accompanying curricula vitae
- Identification of Optional Partner team members with accompanying curricula vitae

Statement of Need Section must include:

- Verification of high-need LEA status (please refer back to the requirements for high-need as identified in section II. LEA Partners) or identification of working in partnership with a high-need school
- Identification and justification of need for increased content knowledge in mathematics for teachers from grades three to five
- Identification and justification of need for improved pedagogical skill for mathematics for teachers from grades three to five⁸
- Description of how the project goals and objectives align with district needs and strategic plan

Readiness Section must include:

- Documentation of a well-articulated and thoughtful partnership between LEA and a qualified IHE involving faculty with deep and proven knowledge of the Common Core State Standards for Mathematics
- Documentation of a K-12 mathematics curriculum aligned to the Common Core State Standards
- Statement of commitment that the activities of the project will be implemented as described in the proposal with processes that describe how implementation will be monitored
- Statement of capacity to implement the activities of the project as described in the proposal
- Certification that at least 90% of the educators from grades three through five will fully commit to the project and contain both ELL and special educators as described in the proposal
- Description and reflective narrative on mathematics or other initiatives that will support the work of this project
- If applicable, strategy for the facilitation of communicating and integrating work within a partnership comprised of multiple LEAs

Proposed Scope of Work Section must include:

- Project narrative including goals and theory of action
- Mathematics needs assessment plan for gauging specific content and pedagogical needs of participants that will inform the design of course content
- Plan for school year professional development including coaching sessions, focused classroom visits, and grade level support groups addressing the release of staff

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⁸ Need for improved pedagogy may be gleaned from previous focused classroom visits conducted by the LEA. However, data reported in this application should identify broad areas of need and be anonymous in nature.

- Breakdown of the grade levels and/or specialty of participating teachers that includes at least 90% of staff assigned in targeted grades
- Strategy for involving district and building leadership
- Project evaluation plan including impact on student and adult learning
- Work plan outlining timeline for completion of major deliverables

<u>Sustainability Plan Section</u> must include a brief description of how the work of the grant will be perpetuated after the conclusion of the grant period. Special attention should be given to the continuing role of the teacher leaders that were developed during the project.

Cost Proposal Section must include a budget that is tied to the scope and requirements of the project. This budget will be considered tentative and for planning purposes only. A final budget will be required upon grant award. Subject to available funding the total cost of the contract is not to exceed \$700,000. The contract will span twenty-two months, starting in November 2014 and ending on August 30, 2016. The Rhode Island State Fiscal Year is July 1 to June 30.

b. Statement of Assurances

Refer to RIDE's Cooperative Agreement Grant template.

Criteria Chart

The breakdown of points awarded for each of the application criteria are summarized in *Table 1, Criteria Chart,* below.

Table 1: Criteria Chart

Criteria	Total Possible Points
Statement of Need	20
Readiness	20
Proposed Scope of Work	30
Sustainability Plan	15
Cost Proposal	15

Program Administration

Notification

Once the review process is completed, the Project Director will be notified of the status of the proposal. RIDE staff will contact the Project Director to discuss any modifications of the project plan that may be required to maximize the effect of funds.

Reporting

All partnerships are required to report annually to RIDE and to the U.S. Department of Education regarding their progress in meeting project objectives and targets. The annual report required for this grant is the APR, which is completed online. Further information regarding reporting requirements and forms will be communicated to the Project Directors.

For questions regarding this application please contact Susan Pagliaro, Mathematics Specialist in the Office of Instruction, Assessment and Curriculum via email, susan.pagliaro@ride.ri.gov or by phone (401)-222-2644.

Please send all completed applications to the Office of Instruction, Assessment and Curriculum via email to Mona Gevorkian, mona.gevorkian@ride,ri.gov or by fax to the attention of Mona Gevorkian at 401-222-3605. All completed applications are due by Close of Business on September 30, 2014.

Project Milestones and Deliverables

The content of the intensive professional development curriculum for *Enhancing Content Knowledge and Pedagogical Skill with the Common Core State Standards for Mathematics* will be designed by the IHE and then undergo a joint review by stakeholders at RIDE and LEA representatives. Said curriculum will be developed during the fall and winter of 2014 and then be delivered to course participants during the summer of 2015. Follow-up sessions and on-site school work will be on-going throughout the 2015-2016 school year. An evaluation and accountability plan and review process must be designed at the initiation of the contract. A team of stakeholders from RIDE will review the evaluation and accountability plan prior to the commencement of the evaluation cycle.

Table 2, Project Milestones and Deliverables, provides an outline of the anticipated timeline for major contract activities. This timeline is not exhaustive and is only intended to provide a sense of the workflow for major program activities. During the contract negotiation period, RIDE will work with the recommended LEA/IHE partnership to establish a specific project plan and schedule. The partnership's response should address any concerns with the proposed timeline and include suggestions for requirement modifications.

Table 2: Project Milestones and Deliverables

Date	Activities	Deliverables
October 2014	Select Partnership	Grant Awarded
November 2014	LEA/IHE partnership defines a detailed project plan, with scope and timeline.	Project Plan: Scope Document with Work Breakdown Structure detailing roles and responsibilities and a timeline of deliverables.
November 2014	IHE defines a detailed evaluation tool and accountability plan to generate data of the PD series as outlined in Mathematics	Provide a detailed description of an evaluation and accountability plan which measures the impact of the PD series.

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	and Science Partnership Program, Part B, Section (e) Evaluation and Accountability Plan ⁹ and approved by RIDE stakeholders and LEA leadership team.	
December 2014 to January 2015	LEA/IHE partnership conducts a comprehensive needs assessment to determine the mathematical content and instructional needs of the district, in general, and teachers in grades three through five, specifically.	Provide a detailed summary report of the needs assessment outlining mathematical content and instructional needs.
January 2015 to March 2015	LEA/IHE partnership collaborates to prioritize content for Enhancing Content Knowledge and Pedagogical Skill with the Common Core State Standards for Mathematics and IHE develops a curriculum for ten days of summer intensive professional development as well as twenty-four hours of follow-up PD.	Provide a detailed curriculum for the intensive professional development series, including both the ten day summer session and the twenty-four hours of follow-up sessions.
March 2015 to April 2015	Review of PD curriculum by RIDE stakeholders and LEA leadership team.	Revised curriculum for intensive professional development series based on review.
June 2015 to August 2015	IHE delivers summer intensive professional development.	Intensive professional development series delivered in summer of 2015.
May 2015 to June 2015	IHE designs protocols for on-site school work.	Provide protocols and accompanying templates, if applicable, for model lessons, focused classroom visits, coaching sessions, and grade level meetings.
July 2015	Review of on-site protocols by RIDE stakeholders and LEA leadership team.	Revised protocols based on review.
August 2015	LEA/IHE partnership coordinates to design and finalize a master schedule for focused classroom visits, coaching sessions, and grade level meetings to be reviewed by RIDE stakeholders.	Provide a master schedule for focused classroom visits, coaching sessions, and grade level meetings.
August 2015 to September 2015	IHE develops a Year 1 Evaluation and Accountability Report for the twenty-two month professional development series to be reviewed by RIDE stakeholders and LEA leadership team.	Detailed report which measures the impact of the professional development to date as outlined in the Mathematics Science Partnership Program, Part B, Section (e) Evaluation and Accountability Plan. ¹⁰
August 2015 to May 2016	IHE delivers remaining hours of professional development. ¹¹	Remaining hours of professional development is delivered during the 2015-2016 school year.
September 2015 to June 2016	IHE conducts a minimum of six focused classroom visits and coaching sessions per teacher who participated in the	Focused classroom visits and coaching sessions are conducted during the 2015-2016 school year.

Mathematics and Science Partnerships http://www2.ed.gov/policy/elsec/leg/esea02/pg26.html
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 The grade level support meetings can be one component of the twenty-four hours of follow-up professional development. These hours may also include, but are not limited to, additional content coverage, lesson studies, and debriefing sessions.

	summer professional development	
	sessions.	
September	IHE facilitates grade level meetings.	Grade level meetings are conducted.
2015 to		
June 2016		
August	Year 2 Evaluation and Accountability	Detailed report which measures the
2016	Report for the twenty-two month	impact of the professional development as
	professional development series to be	outlined in the Mathematics Science
	reviewed by RIDE stakeholders and LEA	Partnership Program, Part B, Section (e)
	leadership team.	Evaluation and Accountability Plan. 12

Terms of the Grant

The grant will begin **November 2014** and end **August 30, 2016**. The scope of the work may be modified by participating LEA and RIDE prior to the beginning work on a given task. Participating LEA and RIDE retains the option of granting a time extension of up to **one year** with additional funding if available and if the level of work is extended by mutual consent. If necessary, deficiencies in performance of services and/or failure to supply deliverables in a complete and timely manner will be documented in writing by RIDE. Should a pattern of substantial dissatisfaction become apparent, participating LEA and RIDE reserves the right to terminate the grant.

Pre-Proposal Questions

Questions concerning this solicitation may be e-mailed to Mona Gevorkian at mona.gevorkian@ride.ri.gov no later than the date and time listed on the cover sheet of this solicitation. **Send your questions in Microsoft Word format**. Please reference the grant title on all correspondence. Questions received, if any, will be posted and answered on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information.

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¹² Mathematics and Science Partnerships http://www2.ed.gov/policy/elsec/leg/esea02/pg26.html